REMARKS

In response to the office action dated December 17, 2009, Applicant has amended claims 1-2, 7-8, 20-21, and 23-24. Claims 1-25 are presented for examination, with claims 1, 14, and 24 being independent.

Double patenting

Claims 1-25 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No.10/734616, claims 1-20 of copending Application No.10/734617, claims 1-26 of copending Application No.10/734618, and claims 1-20 of copending Application No.10/735294.

The examiner stated (emphasis added):

> **Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are directed to substantially similar subject matter of a remote sensing body and goggles for viewing the remote images.**

Applicant disagrees. According to MPEP §1504.06 (emphasis added): "An obviousness-type double patenting rejection must be based on the obviousness standard of 35 U.S.C. 103(a)", not based on whether the claims are directed to a "similar subject matter". The claims of the present application are not obvious in view of any of the four co-pending applications, nor are the claims of any of the four co-pending applications obvious in view of the claims of the present application.

For example, claim 1 of the present application recites:

> ... the first processor overlaying a virtual environment over one or more portions of the received real-time first image to form a first image of a virtual scene with the first image of the virtual scene including at least one remaining portion of the real-time first image, and sending the first image of the virtual scene including the at least one remaining portion of the real-time first image in real time to a communications network.

None of the claims in any of the four copending applications describes or would have made obvious these features. Accordingly the rejection is improper and should be removed.

Claim objections

Claim 7 was objected to because of the following informalities: "communication work" in the third line likely should be "communication network."

Claim 7 has been amended.

Claim 16 was objected to for appearing to claim a human being.

Applicant disagrees. Claim 16 recites a method that comprises "sending motion signals from motion sensors positioned throughout the surface of a human, ..." The human is not a recited element of the method claim.

35 U.S.C. §112 rejections

Claims 3-7, 9-11, and 13 were rejected under 35 U.S.C. §112, ¶1, as failing to comply with the written description requirement.

The examiner stated:

> **Claim 3 includes the limitation "a second humanoid robot, receiving, from the communications network, the motion signals from the motion sensors, the motion signals from the motion sensors causing a movement of the second robot that is correlated to a movement of the body suit." This limitation implies that the body suit controls the first and second robots and is unsupported by the specification which has a one suit to one robot methodology.**

Applicant does not concede that the examiner's interpretation "the body suit [controls] the first and second robots" is complete or correct. Support for claim 3 can be found, e.g., in claim 3 as originally filed and in published application, paragraphs [0038] and [0041]. In particular, claim 3 (depending from claim 2) as originally filed included the following limitations:

> ... a body suit having tactile actuators, the tactile actuators receiving tactile signals from the communications network (claim 2 as originally filed),
> motion sensors positioned throughout the body suit, the motion sensors sending motion signals corresponding to each sensor relative to a reference point ....

Paragraphs [0038] and [0041] describe (emphasis added):

> **[0038] Referring to FIGS. 7A and 7B, the user 22a is shown wearing motion sensors 101, over portions of their bodies, and in particular over those portions of the body that exhibit movement. In addition, the mannequins are replaced by robots. For example, a robot 12b includes a series of motion actuators 103. Each motion actuator 103 placement corresponds to a motion sensor 101 on the user 22a so that each motion sensor activates a motion actuator in the robot that makes the corresponding movement.**

[0042] Referring to FIGS. 9A and 9B, in other embodiments, sensors are placed over various parts of a robot. Corresponding actuators can be sewn in the interior of a body suit that is worn by a user. The sensors and their corresponding actuators are calibrated so that more sensitive regions of a human are calibrated with a higher degree of sensitivity.

Accordingly, a body suit for a user can include both actuators and sensors. The actuators on the body suit can be activated by motion sensors associated with a robot and the sensors on the body suit can send signals to motion actuators associated with a robot.

Claims 2-7, 8-11, 13, 20, and 21 were rejected under 35 U.S.C. 112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular:

Claim 3 includes the limitation "a second humanoid robot, receiving, from the communications network, the motion signals from the motion sensors, the motion signals from the motion sensors causing a movement of the second robot that is correlated to a movement of the body suit." This limitation implies that the body suit controls the first and second robots.

As explained previously, claim 3 does not have any deficiencies.

Claim 7 includes the limitation "the microphone ... being a second microphone" in the fifth line of the claim. The wording of this limitation seems to refer to the first microphone, and thus raising the question of how the first microphone could be in two different locations at the same time.

Applicant disagrees. Claim 7 recites: "the first robot includes a first microphone" and "the microphone coupled to the body of the second robot being a second microphone". The first and second microphones are clearly different.

Claim 2 includes the limitation "to a communications network" in the third line of the claim.

Claim 7 includes the limitation "the communication work" in the third line of the claim.

Claim 8 recites the limitations "the first location" and "the second location" in the third and fourth lines of the claim. There is insufficient antecedent basis for these limitations in the claim.

Claims 20, 21, and 23 all recite the limitation "the second mannequin", and each includes a limitation such as: "the second camera", "the second microphone", "the second audio signals", or "the second video image" in the claims. There is insufficient antecedent basis for these limitations in the claims.

Claims 2, 7, 8, 20, 21, and 23 have been amended.

35 U.S.C. §103 rejections

Claims 1, 12, 14, 18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yee et al., US6,016,385 ("Yee") in view of Clapper et al., US6,752,720 ("Clapper").

The examiner stated, in part:

> **Yee does not explicitly disclose overlaying a virtual environment over one or more portions of the real-time images to form a first image of a virtual scene.**
> **..., Clapper discloses a remotely controlled robot (abstract) that receives real-time imagery from a camera mounted on the remote robot and overlays a virtual environment via a processor (3:60-10, 5:36-46 and figs 5 and 6). One of ordinary skill in the art would recognize the advantages of overlaying a virtual environment over the real-time camera images of a remote robot to provide a more interesting and entertaining system to the controller of the robot.**

Applicant disagrees that one skilled in the art would have modified Yee to overlay "a virtual environment over one or more portions of the received real-time first image to form a first image of a virtual scene," as required by claim 1. Yee requires an operator to take appropriate action based on conditions at the robot site (abstract). The operator modifies the operation of the robot in accordance with changed or developing conditions at the robot site effectively and quickly (column 3, lines 3-4 and lines 18-20). Yee would not have transmitted an image of a virtual scene to the operator, at least because the operator would be misled by the virtual scene and would not be able to take appropriate actions to control the robot. Yee's operator needs to respond to real, physical scenes at the robot site, not any virtual scene, to operate the robot. The examiner's purported motivation to modify Yee's "provide a more interesting and entertaining system to the controller of the robot," would be incompatible with and likely detrimental to Yee's stated goal "to provide entertainment for general public who encounters the robot," (column 5, lines 43-48). Accordingly, at least because the examiner's stated motivation destroys the intent, purpose, and function of Yee, the examiner has not provided the articulated reasoning necessary to sustain this rejection. "... it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be

combinations of what, in some sense, is already known." *KSR Intl. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1731 (2007)

Accordingly, even if Clapper describes "overlaying a virtual environment over one or more portions of the received real-time first image to form a first image of a virtual scene," (Applicant does not concede that Clapper does) one skilled in the art would not have combined Clapper with Yee because such a combination would render Yee's system inoperable or malfunctioning.

Clapper displays to a game player a physical vehicle in a scene that includes real walls of a room where vehicle is, and virtual creatures and virtual laser targets in the room (FIG. 2 and column 3, line 64 – column 4, line 8). The game player uses the virtual laser to blast the virtual creatures (column 3, lines 62-64). Clapper's virtual objects are game data (column 4, line 1) so that the game player can interact with the virtual objects in the virtual scenes to play games. Yee provides an interaction between the operator and the general public through operation of the robot based on the physical conditions of the robot site. Clapper and Yee use different methods to achieve different goals and one skilled in the art would not have combined their methods.

In response to Applicant's argument, the examiner stated:

> **Applicant argues with reference to Yee "that one of ordinary skill in the art would not have modified Yee to form an image of a virtual scene because the system would not work if the operator of the robot cannot see the real scene of the environment of the robot." Examiner finds this logic extremely flawed as in applicant's own system the user is looking at a virtual scene whilst piloting a remote robot. Clearly, one of ordinary skill in the art would not be so myopic as to so cover the images from the remote camera as to prevent adequate control. Additionally, the cited reference Clapper clearly shows that such a configuration is not just possible but desirable for entertainment as well. One of ordinary skill in the art is presumed to have skills apart from what the prior art references expressly disclose.**

Applicant does not concede that the examiner's interpretation "in applicant's own system the user is looking at a virtual scene whilst piloting a remote robot" is complete or correct. In addition, by referencing Applicant's own description, the examiner seeks to derive from the present application the motivation for combining Yee and Clapper, which is hindsight and clearly improper as the Court has stated: "[a] fact finder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon ex post reasoning." *KSR Intl. Co. v. Teleflex Inc.*, 127 S.Ct. 1742 (2007).

As Applicant has explained, from Yee's teaching, one skilled in the art would not have overlaid "a virtual environment over one or more portions of the received real-time first image."

The examiner's statement that "one of ordinary skill in the art would not be so myopic as to so cover the images from the remote camera as to prevent adequate control" is ungrounded and detached from Yee's teaching and is merely an attempt to repair an fatally flawed motivation .

One skilled in the art would not have combined Clapper and Yee merely because Clapper allegedly describes a missing feature of Yee (Applicant does not concede that Clapper does or Yee does not lack other features). "The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985). Here, Yee's teaching as a whole, suggests the desirability of not making the combination.

Independent claim 1 is patentable over Yee and Clapper. Independent claim 14 is patentable for at least reasons similar to those discussed for claim 1. All dependent claims are patentable for at least the reasons discussed for respective independent claims.

Claims 24 and 25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yee in view of Clapper, Dundon, US7,046,151 ("Dundon"), and Abbasi, US 6,786,863 ("Abbasi").

Regarding independent claim 24, for at least the reasons discussed for claim 1, it would not have been obvious to modify Yee to include the feature of "overlaying a virtual environment over one or more portions of the received real-time first image to form a first image of a virtual scene." Regardless of whether Clapper, Dundon and Abbasi describe "overlaying a virtual environment over one or more portions of the received real-time first image to form a first image of a virtual scene," independent claim 24 and its dependent claim 25 are patentable over Yee, Clapper, Dundon, and Abbasi.

Claims 2 and 15-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yee in view of Clapper, and further in view of Dundon. Claims 3-9, 11, 13, 19, 21, and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yee in view of Clapper and Dundon, and further in view of Abbasi. Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yee in view of Clapper, Dundon, and Abbasi, and further in view of Gutierrez, US4,982,281 ("Gutierrez"). Claim 20 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yee in view of Clapper, and further in view of Gutierrez.

None of Yee, Clapper, Dundon, Abbasi, and Gutierrez, alone or in combination, describes or would have made obvious "overlaying a virtual environment over one or more portions of the received real-time first image to form a first image of a virtual scene," as recited by independent claim 1 or similar features recited by independent claims 14 and 24. The dependent claims are patentable for at least the reasons discussed for respective independent claims and/or reasons of record.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Please apply the $555.00 Petition for Extension of Time Fee and any other charges or credits to deposit account 06-1050, referencing attorney docket no. 14202-0005001.

Respectfully submitted,

Date: June 4, 2010

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